

At page 27, line 4, replace "the emulator" with --emulator 316--.

At page 27, line 5, replace "The emulator" with --Emulator 316--.

At page 28, line 4, replace "a write-protect" by --XP write-protect--.

At page 28, lines 20-21, replace "the Tapestry operating system and the X86 operating system" with --Tapestry operating system (312 of Fig. 3a) and X86 operating system 306--.

At page 28, line 23, replace "set" with --cleared--.

At page 29, line 25, replace "EPC.PC (the EPC is the X86" with --EPC.EIP (the EPC is the native --

At page 29, line 26, replace "EPC.PC" with --EPC.EIP--.

At page 29, line 29, replace "the DMU (DMA management unit)" with --DMU (DMA monitoring unit) 700 --.

At page 30, line 8, replace "management" with --monitoring--.

At page 33, line 8, replace "tapestry" with --Tapestry--.

At page 37, line 29, replace "EPC" with --EPC.EIP--.

At page 40, line 24, replace "the emulator and profiler contexts" with --context for emulator 316 and profiler 400 --.

At page 41, line 1, replace "systems," with --systems 306, 312,--.

At page 41, line 24, replace the second instance of "system" with --system 306--.

At page 42, line 23, replace "The emulator" with --Emulator 316--.

At page 45, line 19, replace "EPC" with --EPC.EIP--.

At page 46, lines 11-12, replace "the tapestry operating system" with --Tapestry operating system 312--.

At page 50, lines 3, 4, 5 and 15, replace "EPC" with --EPC.EIP--.

At page 50, lines 17-18, replace "the operating system" with --Tapestry operating system 312--.

At page 51, line 21, replace "EPSW" with --EPC (error PC and program status word), in turn--.

At page 51, line 23, replace "EPSW" with --EPC--.

At page 52, line 25, before "bit" insert --calling convention--.

At page 61, lines 30-31, replace "the X86 operating system are" with --X86 operating system 306 may be--.

At page 64, line 2, replace "the operating system" with --emulator 316 --.

At page 64, lines 5, 6 and 18 (twice), replace "the emulator" with --emulator 316 --.

At page 69, line 16, replace "real" with --physical--.

At page 74, line 12, replace "466" with --820--.

At page 78, line 24, after "action 524." insert the sentence --The ring buffer write pointer, pointing to the next location in the ring buffer, is maintained in R15 ("RingBuf" of Table 1). After the collected profile packet is stored at the location indicated by R15, R15 is postincremented by the size of a profile packet. --.

At page 83, line 10, replace "the emulator" with --emulator 316 --.

At page 87, lines 14 and 22, replace "The emulator" with --Emulator 316--.

At page 87, line 19, replace "the emulator" with --emulator 316 --.

At page 94, line 10, after "entry" insert --640--.

At page 96, line 15, replace "the emulator" with --emulator 316 --.

At page 98, line 6, replace "real" with --physical--.

At page 99, line 7, replace "it" with --the handler--.

At page 99, line 13, replace "the EPC" with --EPC.EIP--.

At page 99, line 21, replace "set" with --cleared--.

At page 102, line 19, replace "One" with --On--.

### **In the Claims:**

Please amend the claims as follows.

1. A method, comprising the steps of:

while executing a program on a computer, detecting the occurrence of profileable events occurring in the instruction pipeline, and directing the instruction pipeline to record profile information describing the profileable events essentially concurrently with the occurrence of the profileable events, the detecting and recording occurring under control of hardware of the computer without software intervention.

6. The method of claim 5, further comprising the step of:

when an instruction fetch of an instruction causes a miss in a translation look aside buffer (TLB), the fetch of the instruction triggering a profileable event, servicing the TLB miss and reflecting the corrected state of the TLB in the profile information recorded for the profileable instruction.

7. The method of claim 5: